

21. (New) A method as defined in claim 20, wherein the N-methyl pyrrolidone is included in the cleaner in a concentration in a range from about fifty percent to one hundred percent by weight of the cleaner.

Remarks

Claim 1 has been cancelled. New claims 2-21 have been added.

The pending claims are method claims related to the removal of graffiti and other unwanted substances from coated substrates. Each independent claim recites two steps. The first step recited in claim 2 is "identifying a substrate protected from unwanted substances such as graffiti with a clear, two layer coating". The first step recited in claims 14 and 20 is "protecting a substrate from unwanted substances such as graffiti with a clear, two layer coating". The two layer coating is recited in claims 2, 14 and 20 as including "a saturated, aliphatic urethane protective topcoat over a polymerized primer layer on the substrate". The second step is recited in claims 2 and 14 as "applying a cleaner to remove any unwanted substances such as graffiti from the topcoat after unwanted substances are applied onto the topcoat". Claim 20 more narrowly recites that the cleaner includes includes N-methyl pyrrolidone.

This patent application is related to two patents owned by American Polymer, Inc., U.S. Patent No. 5,910,369 titled Methods for Protecting Substrates with Urethane Protective Coatings and U.S. Patent No. 6,312,815 titled Two Layer Protective Coatings. Note that the two layer coatings claimed in the present method claims are not recited more broadly than the

two layer coatings are recited in U.S. Patent No. 6,312,815. More particularly, claims 2, 14 and 20 of the present application recite essentially the same composition as is recited in claim 1 of U.S. Patent No. 6,312,815. These claims recite that the primer layer is formed on the substrate from a primer layer composition obtained by mixing an acrylic copolymer and water. These claims also recite that the topcoat is formed on the primer layer under ambient conditions from a topcoat composition obtained by mixing a polyol and an aliphatic polyisocyanate. One benefit of this two layer coating is that the primer layer prevents the topcoat from causing the substrate to appear substantially darkened after the topcoat has hardened on the primer layer compared to the appearance of the substrate before application of the two layer coating. Another benefit is that the topcoat is not substantially degraded by the cleaner.

Like the claims in U.S. 5,910,369, the claims pending in the present application are also method claims. Note, however, that the pending independent claims also recite the step of "applying a cleaner to remove any unwanted substances such as graffiti from the topcoat after unwanted substances are applied onto the topcoat". As indicated above, independent claim 20 more narrowly recites that the cleaner includes N-methyl pyrrolidone.

The claims pending in the present application are patentable for at least the same reasons as U.S. Patent No. 5,910,369 and U.S. Patent No. 6,312,815 are patentable. In view of the foregoing, it is believed that the claims are patentable in their present form, and favorable consideration and allowance thereof is respectfully requested. If the Examiner finds any remaining impediment to the prompt allowance of this application, please contact the undersigned attorney.

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Respectfully submitted,

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PATENT TRADEMARK OFFICE

VERSION WITH MARKINGS TO SHOW CHANGES MADE IN THE CLAIMS:

1. Cancelled

2. (New) A method for protecting a substrate from unwanted substances such as graffiti and for removing unwanted substances such as graffiti, the method comprising:

identifying a substrate protected from unwanted substances such as graffiti with a clear, two layer coating including a saturated, aliphatic urethane protective topcoat over a polymerized primer layer on the substrate;

wherein the primer layer is formed on the substrate from a primer layer composition obtained by mixing an acrylic copolymer and water,

wherein the topcoat is formed on the primer layer under ambient conditions from a topcoat composition obtained by mixing a polyol and an aliphatic polyisocyanate;

wherein the primer layer prevents the topcoat from causing the substrate to appear substantially darkened after the topcoat has hardened on the primer layer compared to the appearance of the substrate before application of the two layer coating; and

applying a cleaner to remove any unwanted substances such as graffiti from the topcoat after unwanted substances are applied onto the topcoat;

wherein the unwanted substances are removed from the topcoat without the topcoat being substantially degraded by the cleaner.

3. (New) A method as defined in claim 2, wherein the primer composition further comprises siloxane and dimethyl carbinol.
4. (New) A method as defined in claim 2, wherein said polyol is selected from the group consisting of a saturated polyester polyol having an equivalent weight ranging from about 150 to about 1300, acrylic polyol, polyether polyol, ethylene glycol and propylene glycol.
5. (New) A method as defined in claim 2, wherein said polyol is a saturated polyester polyol having a weight average molecular weight ranging from about 3500 to about 4300.
6. (New) A method as defined in claim 2, wherein said aliphatic polyisocyanate has a molecular weight ranging from about 100 to about 5000 and an equivalent weight ranging from about 100 to about 500.
7. (New) A method as defined in claim 2, wherein said topcoat composition includes a flatting agent so that the topcoat is flat.
8. (New) A method as defined in claim 7, wherein the flatting agent is selected from the group consisting of talc, diatomaceous silica and fumed silica.

9. (New) A method as defined in claim 7, wherein the flattening agent is included in the topcoat composition in an amount ranging up to about 4.5% by weight of the composition.

10. (New) A method as defined in claim 2, wherein said cleaner comprises N-methyl pyrrolidone.

11. (New) A method as defined in claim 2, wherein said cleaner comprises N-methyl pyrrolidone in a concentration in a range from about fifty percent to one hundred percent by weight of the cleaner.

12. (New) A method as defined in claim 2, wherein said cleaner is selected from the group consisting of acetone and xylene.

13. (New) A method as defined in claim 2, further comprising rinsing the cleaner and any unwanted substances off of the topcoat.

14. (New) A method for protecting a substrate from unwanted substances such as graffiti and for removing unwanted substances such as graffiti, the method comprising:

protecting a substrate from unwanted substances such as graffiti with a clear, two layer coating including a saturated, aliphatic urethane protective topcoat over a polymerized primer layer on the substrate;

wherein the primer layer is formed on the substrate from a primer layer composition obtained by mixing an acrylic copolymer and water;

wherein the topcoat is formed on the primer layer under ambient conditions from a topcoat composition obtained by mixing a polyol and an aliphatic polyisocyanate;

wherein the primer layer prevents the topcoat from causing the substrate to appear substantially darkened after the topcoat has hardened on the primer layer compared to the appearance of the substrate before application of the two layer coating; and

applying a cleaner to remove any unwanted substances such as graffiti from the topcoat after unwanted substances are applied onto the topcoat;

wherein the unwanted substances are removed from the topcoat without the topcoat being substantially degraded by the cleaner.

15. (New) A method as defined in claim 14, wherein said polyol is selected from the group consisting of a saturated polyester polyol having an equivalent weight ranging from about 150 to about 1300, acrylic polyol, polyether polyol, ethylene glycol and propylene glycol.

16. (New) A method as defined in claim 14, wherein said polyol is a saturated polyester polyol having a weight average molecular weight ranging from about 3500 to about 4300.

17. (New) A method as defined in claim 14, wherein said aliphatic polyisocyanate has a molecular weight ranging from about 100 to about 5000 and an equivalent weight ranging from about 100 to about 500.

18. (New) A method as defined in claim 14, wherein said topcoat composition includes a flatting agent so that the topcoat is flat.

19. (New) A method as defined in claim 18, wherein the flatting agent is included in the composition in an amount ranging up to about 4.5% by weight of the composition.

20. (New) A method for protecting a substrate from unwanted substances such as graffiti and for removing unwanted substances such as graffiti, the method comprising:

protecting a substrate from unwanted substances such as graffiti with a clear, two layer coating including a saturated, aliphatic urethane protective topcoat over a polymerized primer layer on the substrate;

wherein the primer layer is formed on the substrate from a primer layer composition obtained by mixing an acrylic copolymer and water,

wherein the topcoat is formed on the primer layer under ambient conditions from a topcoat composition obtained by mixing a polyol and an aliphatic polyisocyanate;

wherein the primer layer prevents the topcoat from causing the substrate to appear substantially darkened after the topcoat has hardened on the primer layer compared to the appearance of the substrate before application of the two layer coating; and

applying a cleaner that includes N-methyl pyrrolidone to remove any unwanted substances such as graffiti from the topcoat after unwanted substances are applied onto the topcoat;

wherein the unwanted substances are removed from the topcoat without the topcoat being substantially degraded by the cleaner.

21. (New) A method as defined in claim 20, wherein the N-methyl pyrrolidone is included in the cleaner in a concentration in a range from about fifty percent to one hundred percent by weight of the cleaner.